No substitute for good food Nurse Alert Newsletter, San Bernardino County Department of Public Health, Child Health and Disability Program Fall 2000

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Gradually science is beginning to offer answers to the questions Americans have about dietary supplements. As the answers unfold, it becomes evident that misuse could carry harmful consequences. Aimless use of dietary supplements has more ill effects than many realize.

BETA-CAROTENE. A prime example is perceived health benefit related to supplementation with beta-carotene. Early interest in the carotenoids was from consistent observation that consumers of fruit and vegetables, particularly green and yellow leafy vegetables, had reduced risk of cancer.

Beta-carotene was the primary focus because it was the best-known antioxidant. Those who jumped on the "some is good, more must be better" bandwagon were in for quite a jolt. Results of two randomized, double-blind, placebo controlled studies revealed that supplementing with beta-carotene might be harmful.

STUDY STOPPED. One such study, the Beta Carotene and Retinol Efficacy Trial (CARET), had to be stopped after four years because the supplement takers who smoked had a 28 percent higher occurrence of lung cancer and 17 percent higher death rate.

Another study, the Finnish Alpha Tocopherol, Beta Carotene Cancer Prevention Study (ATBC), revealed similar results. Now, many nutrition experts discourage the use of beta-carotene supplements, even for nonsmokers because there is potential risk and no evidence of benefit.

VITAMIN C. Linus Pauling, Ph. D., 1954 Nobel Prize winner in chemistry, popularized the notion that large doses of supplemental vitamin C can prevent the common cold and prolong the lives of cancer patients. The majority medical and nutritional scientists now refute Pauling's findings. For genetic reasons, more than 10 percent of American whites and as many as 30 percent of American blacks have high body iron. Some evidence indicates that supplemental vitamin C in the presence of high body iron stores can act like a violent pro-oxidant that could play a contributing role in major diseases, such as cancer, rheumatoid arthritis, and arthrosclerosis.

FACT OR HYPE. The use of many popular supplements is not substantiated by scientific investigation. For example, Echinacea has not demonstrated an ability to prevent the common cold, and Ginkgo Biloba is not associated with improved mental acuity in individuals without clinically diagnosed dementia.

Dietary supplement manufacturers are governed under the Dietary Supplement Health and Education Act of 1994 that allows products to be sold without prior approval by the Food and Drug Administration. The current legislation has created the present marketing atmosphere of caveat emptor, or let the buyer beware.

By relying on dietary supplements to maintain good health, one would miss out on the numerous other health – protecting food compounds that are abundant in the food we eat. Foods such as fruits, vegetables, whole grains, legumes, nuts, and seeds are loaded with health promoting nutrients:

Gluathione is found in onions and potatoes and may counter cancer-causing substances.

Resveratrol is found in the skin of grapes and in grape juice and may protect the heart.

Saponins in soybeans, legumes, and other beans may prevent cancer cells from multiplying, help control blood sugar, cholesterol, and triglycerides.

MOM'S ADVICE PREVAILS. There is considerable potential for scientific investigation to uncover the health promoting properties of foods and dietary supplements. Yet, the scientific process takes time and resources. Meanwhile, mom's advice prevails, "Eat your fruit and vegetables."

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